

Notice of Allowability

Application No.

10/025,601

Examiner

Kim-Kwok CHU

Applicant(s)

CHIU ET AL.

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on 4/13/2005.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ The drawings filed on 03 January 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

1. Claims 1-11 are allowable over prior art.

2. The following is an Examiner's statement of reasons for the indication of allowable subject matter based on Applicant's Amendment filed on April 13, 2005.

As in claim 1, the prior art of record fails to teach or fairly suggest an electro-optical device having the following features:

(a) an optical unit supporting a semiconductor chip. The optical unit having a first mirror, a second mirror, a first lens, a second lens and glass members;

(b) the first mirror aligned to reflect the laser beam from the first direction to a second direction; the glass members directs the laser beam from the second direction to the first lens; then, the first lens directs the laser beam outward to strike the surface of an optical disc; and

(c) after the laser beam reflects from the surface of the optical disc, the second mirror splits the information-containing beam into first and second component beams; and the third mirror directs the first component beam at the first photodetector, the second component beam passing through the second mirror in a direction at the second photodetector.

As in claim 8, the prior art of record fails to teach or fairly suggest an optical unit having the following features:

(a) the optical unit has a base element including a first mirror, a second mirror, a third mirror, a lens element having a first, a second lenses, the second mirror and the third mirror;

(b) the first mirror reflects light from a first direction from the laser to a second direction, the second mirror being positioned relative to the base element to reflect laser light from the second direction to a third direction, the third mirror being positioned relative to the second mirror to reflect laser light from the third direction to a fourth direction, and the third mirror being partially reflective to permit light to pass through at a first photodetector; and

(c) the first lens being disposed to direct laser light from the fourth direction at the optical disc, and the second lens being disposed to receive light reflected from the optical disc and direct it at the third mirror.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Matsuo et al. (6,542,447) is pertinent because Matsuo teaches an optical element having reflective mirrors for directing a laser beam.

Hayashi et al. (5,790,504) is pertinent because Hayashi teaches an optical element having reflective mirrors for directing a laser beam.

5. Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:

(571) 273-8300 (for formal communications intended for entry. Or:

(571) 273-7585, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application should be directed USPTO Contact Center (703) 308-4357; Electronic Business Center (703) 305-3028.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kim-Kwok CHU
Examiner AU2653

August 5, 2005
(571) 272-7585

Wk 8/5/05

William Korzuch
WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600